

DISSEMINATION CONTROL ABBREVIATIONS

NOFORN- Not Releasable to Foreign Nationals NOCONTRACT- Not Releasable to Contractors or

Contractor/Consultants

PROPIN- Caution-Proprietary Information Involved

USIBONLY- USIB Departments Only

ORCON- Dissemination and Extraction of Information

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		April 1977 25X
MEMORANDUM FOR:	Recipients of SR-012/77, Probable MIG-17 (FRESCO) Refurbishment Activity at Novosibirsk Airframe Plant Summary Report Dated March 1977	
SUBJECT :	Revisions to Mensuration	

Please destroy the above document and substitute the attached.

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Summary Report

NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER

PROBABLE MIG-17 (FRESCO) REFURBISHMENT/RETROFIT ACTIVITY AT NOVOSIBIRSK AIRFRAME PLANT 153 USSR

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SR-012/77

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APRIL 1977

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Probable MIG-17 (FRESCO) Refurbishment/Retrofit Activity at Novosibirsk Airframe Plant 153, USSR

Novosibirsk may be involved in a program of refurbishing/retrofitting MIG-17 (FRESCO) aircraft, probably for shipment to Africa and the Middle East. This assumption is based on a detailed analysis of photography

of Novosibirsk Airframe Plant 153

and Petrozavodsk Airfield Northwest (Figure 1).

Photographic evidence suggests that the FRESCO being used in this program are being supplied, at least in part, by the Soviet Aviation of Air Defense (PVO). The FRESCO is a subsonic clear-air-only interceptor that is being replaced throughout the PVO by newer supersonic aircraft. Kupino Airfield, a PVO base in the Novosibirsk Air Defense District, has recently received a regiment of SU-9 (FISHPOT) to replace its FRESCO unit. Petrozavodsk Airfield Northwest, a PVO base in the Arkhangelsk Air Defense District, has received a regiment of SU-15 (FLAGON), also to replace an aging FRESCO unit.

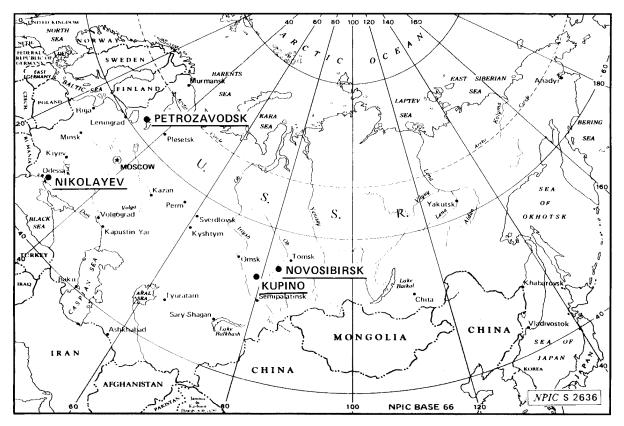


FIGURE 1. LOCATIONS OF PROBABLE FRESCO REFURBISHMENT/RETROFIT ACTIVITY, USSR

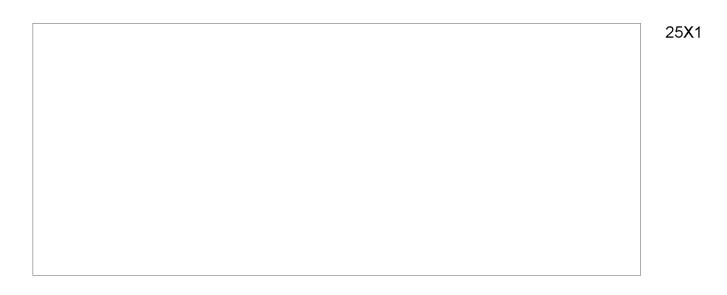


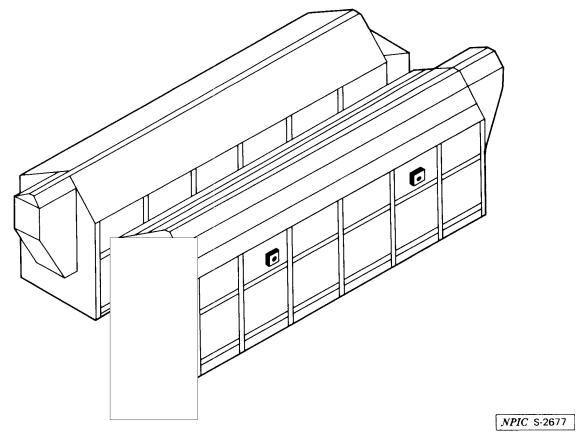
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The new FRESCO container is similar in configuration (Figure 3) to the MIG-21 (FISHBED) type A shipping container and has projections on each end. The original FRESCO shipping container was and has projections. The new FRESCO container was probably designed to provide better protection for the aircraft it carries. The new FRESCO container was identified at Kupino Airfield (Figure 4) on photography Nine containers were in the aircraft maintenance area and three were in the storage area. On photography as FRESCO fuselage was seen positioned in front of one container in the aircraft maintenance area. The new FRESCO container was later identified at Petrozavodsk Airfield Northwest on photography Thirteen containers were positioned on the edge of the main parking apron. FRESCO aircraft were parked in front of five containers. Additional evidence that Kupino Airfield is supplying FRESCO to Novosibirsk was provided by photography On that date, an AN-8 (CAMP; Soviet Bort Number 55512) was parked on the main apron. The fuselage of a probable FRESCO was positioned under the tail section of the CAMP (Figure 5). At Novosibirsk positioned under the tail section of the CAMP (Figure 5). At Novosibirsk positioned under the tail section of the CAMP (Figure 5). At Novosibirsk positioned under the tail section of the CAMP (Figure 5). At Novosibirsk positioned under the tail section of the CAMP (Figure 5). At Novosibirsk positioned under the tail section of the CAMP (Figure 5). At Novosibirsk positioned under the tail section of the CAMP (Figure 5). At Novosibirsk positioned under the tail section of the CAMP (Figure 5). At Novosibirsk positioned under the tail section of the CAMP (Figure 5). At Novosibirsk positioned under the tail section of the CAMP (Figure 5). At Novosibirsk positioned under the tail section of the CAMP (Figure 5) and the figure 4 on the properties of the properties	The new Soviet FRESCO shipping container (Figure 2), described in the May 1975 USIB brief,* was identified at Kupino and Petrozavodsk simultaneously with the receipt of the new aircraft and was identified at Novosibirsk	25 X 1
photography Nine containers were in the aircraft maintenance area and three were in the storage area. On photography a FRESCO fuselage was seen positioned in front of one container in the aircraft maintenance area. The new FRESCO container was later identified at Petrozavodsk Airfield Northwest on photography Thirteen containers were positioned on the edge of the main parking apron. FRESCO aircraft were parked in front of five containers. Additional evidence that Kupino Airfield is supplying FRESCO to Novosibirsk was provided by photography On that date, an AN-8 (CAMP; Soviet Bort Number 55512) was parked on the main apron. The fuselage of a probable FRESCO was positioned under the tail section of the CAMP (Figure 5). At Novosibirsk 25X1 the same CAMP, identified by its Bort Number, was seen parked on an apron near the main plant which contains the new FRESCO shipping containers. *USIB. CSB 75-11, Sino-Soviet Arms Traffic, May 75 (SECRET)	(FISHBED) type A shipping container and has projections on each end. The original FRESCO shipping container was and had no projections. The new FRESCO container was probably designed	25X1 25X1
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	*IJSIR CSR 75.11 Sino Soviet Arms Traffic May 75 (SECRET)	
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FIGURE 3. ARTIST'S CONCEPT OF NEW FRESCO SHIPPING CONTAINER

- 3 Top Secret



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Although Novosibirsk does not have a history of Mikoyan fighter production, it is a logical choice for a small-scale refurbishment/retrofit program. The plant has a floorspace of 2.5 million square feet and, on the basis of photographic observations, has recently cutback its production of FLAGON and SU-19 (FENCER) aircraft.

FRESCO containers are being shipped from Nikolayev Port Facility South (BE 0250-01426), the principal port from which Soviet-made arms are shipped to the Middle East and Africa. The new FRESCO containers are frequently seen on the quay and on flatcars in the rail yard.

The new FRESCO container has also been seen on photography at two airfields in Sudan. From photographic observations, other countries which have recently received shipments of FRESCO from the Soviet Union are Angola and Congo.

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List of Conversion Factors by Classification

UNITS OF LENGTH

UNITS OF MASS

IF YOU HAVE	MULTIPLY BY	TO OBTAIN	IF YOU HAVE	MULTIPLY BY	TO OBTAIN
MILLIMETERS	0.0394	INCHES	KILOGRAMS	2.2046	POUNDS(AVOIR.)
CENTIMETERS	0.3937	INCHES	POUNDS(AVOIR.)	0.4536	KILOGRAMS
INCHES	25.4000	MILLIMETERS	SHORT TONS	0.9072	METRIC TONS
INCHES	2.5400	CENTIMETERS	METRIC TONS	1.1023	SHORT TONS
FEET	0.3048	METERS	METRIC TONS	0.9842	LONG TONS
FEET	0.0003	KILOMETERS	LONG TONS	1.0160	METRIC TONS
YARDS	0.9144	METERS			
METERS	3.2808	FEET			
METERS	0.0005	MILES(NAUTICAL)			
METERS	1.0936	YARDS	UNITS OF VOLUME		
KILOMETERS	3280.8400	FEET			
KILOMETERS	0.6214	MILES(STATUTE)	IF YOU HAVE	MULTIPLY BY	TO OBTAIN
KILOMETERS	0.5400	MILES(NAUTICAL)	LITERS	0.2642	GALLONS
MILES(STATUTE)	1.6093	KILOMETERS	LITERS	0.0063	BARRELS(POL)
MILES(NAUTICAL)	6076.1154	FEET	LITERS	0.0010	CUBIC METERS
MILES(NAUTICAL)	1.8520	KILOMETERS	GALLONS	3.7854	LITERS
MILES(NAUTICAL)	1852.0000	METERS	GALLONS	0.1337	CUBIC FEET
			GALLONS	0.0238	BARRELS(POL)
			GALLONS	0.0038	CUBIC METERS
			BUSHELS	0.0352	CUBIC METERS
ι	JNITS OF AR	EA	CUBIC FEET	7.4805	GALLONS
IF YOU HAVE	MULTIPLY BY	TO OBTAIN	CUBIC FEET	0.1781	BARRELS(POL)
SQUARE CENTIMETERS	0.1550	SQUARE INCHES	CUBIC FEET	0.0283	CUBIC METERS
SQUARE INCHES	6.4516	SQUARE CENTIMETERS	CUBIC YARDS	0.7646	CUBIC METERS
SQUARE FEET	0.0929	SQUARE METERS	BARRELS(POL)	158.9873	LITERS
SQUARE YARDS	0.8361	SQUARE METERS	BARRELS(POL)	42.0000	GALLONS
SQUARE METERS	10.7639	SQUARE FEET	BARRELS(POL)	5.6146	CUBIC FEET
SQUARE METERS	1.1960	SQUARE YARDS	BARRELS(POL)	0.1590	CUBIC METERS
SQUARE METERS	1.0000	CENTARES	CUBIC METERS	1000.0000	LITERS
SQUARE METERS	0.0002	ACRES	CUBIC METERS	264.1721	GALLONS
SQUARE METERS	0.0001	HECTARES	CUBIC METERS	35.3147	CUBIC FEET
ACRES	4046.8564	SQUARE METERS	CUBIC METERS	28.3776	BUSHELS
ACRES	0.4047	HECTARES	CUBIC METERS	6.2898	BARRELS(POL)
HECTARES	10000.0000	SQUARE METERS	CUBIC METERS	1.3080	CUBIC YARDS
HECTARES	2.4711	ACRES			

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